

To: Physicians, Nurses, and Other Health Care Providers in the Federated States of Micronesia
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Subject: Acetaminophen Update
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This is the first in a series of updates we will be sending you on common poisonings.

Acetaminophen (APAP) is one of the most common pharmaceuticals taken in overdose.

It is very safe at therapeutic dosing but is also the leading cause of liver failure in the US due to either acute overdose or repeated supratherapeutic ingestion.

APAP is present in over 600 prescription and over-the-counter products, so patients may not be aware they've taken it. Patients may also confuse one non-prescription analgesic with another.

Liver damage is caused by an APAP metabolite, so after acute overdose patients may initially be asymptomatic or have only mild nausea and vomiting with normal liver enzymes.

Elevated liver enzymes at presentation should raise the suspicion of recent APAP overdose.

However, liver enzymes might not become elevated until 24-36 hours after APAP overdose.

All intentional overdose patients should have liver enzymes checked initially and at 24-36 hours.

The treatment, N-acetylcysteine (NAC), is most effective when given within 8 hours of the overdose. NAC should be considered in all cases of intentional self-harm where the patient had access to APAP. Late-presenting patients with liver injury can still benefit from NAC.

The smell and taste of NAC can be nauseating, so it may be helpful to dilute, give through a straw, or administer anti-emetics.

NAC is given as a loading dose (140 mg/kg) followed by 70 mg/kg q 4 h. If the patient vomits within 1 h of NAC administration, that dose should be repeated. The Poison Center can send you detailed guidelines for administering NAC.

Once started, NAC should be continued for at least 36 hours (longer if AST and ALT are rising). If enzymes are elevated, PT or INR should also be checked.

If AST and ALT are normal 36 hours after ingestion, significant liver injury is unlikely, and NAC can be discontinued.

Our trained staff of nurse specialists in poison information and physician toxicologists is available 24 hours a day to answer your questions. In the Federated States of Micronesia, health care professionals and the public can reach the Poison Center by calling 288, wait for an automated operator, then 888-222-4516.